

Area-level incarceration and STI risk among a cohort of justice-involved adolescents and adults

Sarah Wiehe, MD, MPH, Indiana University School of Medicine, Indianapolis, IN

Marc Rosenman, MD , Indiana University School of Medicine, Indianapolis, IN

Michael Scanlon, BA , Indiana University School of Medicine, Indianapolis, IN

J. Dennis Fortenberry, MD, MS , Department of Pediatrics, Indiana University School of Medicine, Indianapolis, IN

Matthew Aalsma, PhD , Indiana University School of Medicine, Indianapolis, IN

Background: Living in areas of high incarceration is associated with increased risk of STI; however, STI risk with respect to both this area-level exposure and an individual's involvement with the justice system is not known.

Objective: Among individuals before and after arrest or incarceration, assess the association between area-level incarceration rates and risk of chlamydia, gonorrhea, or syphilis.

Methods: Retrospective cohort study of individuals living in Marion County (Indianapolis), Indiana who were arrested or in jail, prison, juvenile detention, or juvenile prison between 2005-2008 (N=97,765). Area-level incarceration exposure was defined by the proportion of person-days incarcerated among the total population*365 within a census block group. A 1-year period was assessed before and after a randomly-selected arrest/incarceration per person. Multivariable logistic regression, controlling for age, race, STI history, and year, was performed to assess chlamydia, gonorrhea, or syphilis risk by quartile area-level incarceration exposure, adjusting for individual clustering and stratifying by gender.

Results: Area-level incarceration was associated with increased odds of each STI, with a dose response relationship particularly among those with an arrest or jail stay. Women with a history of arrest or jail/prison stay and living in high incarceration areas had higher odds of STI, compared to men with comparable incarceration history and living in similar areas.

Discussion: Area-level incarceration exposure is associated with increased STI risk, particularly among adult women. Focusing STI prevention and treatment in areas of high incarceration rates may be warranted to reduce sexual and reproductive health disparities among women.

Learning Areas:

Epidemiology

Public health or related research

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Learning Objectives:

List 5 indicators that are associated with chlamydia, gonorrhea, or syphilis risk among recent offenders
Assess whether there is increased risk of chlamydia, gonorrhea, or syphilis based on area-level incarceration rates among individuals before and after interaction with the justice system

Keyword(s): Criminal Justice, STDs/STI

Presenting author's disclosure statement:

Qualified on the content I am responsible for because: I have been the principal investigator or co-investigator of multiple federally-funded grants focusing on the epidemiology of sexually transmitted infections, including among vulnerable populations such as adolescents and incarcerated. Among my scientific interests has been how area and individual-level incarceration may explain racial disparities in STI rates.

Any relevant financial relationships? No

I agree to comply with the American Public Health Association Conflict of Interest and Commercial Support Guidelines, and to disclose to the participants any off-label or experimental uses of a commercial product or service discussed in my presentation.